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COMMITTEE OF EXPERTS ON THE TRANSPORT OF DANGEROUS GOODS

Sub-Committee of Experts on the Transport of Dangerous Goods

REPORT OF THE SUB-COMMITTEE OF EXPERTS ON ITS FIFTEENTH SESSION

(Geneva, 29 June-9 July 1998)

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REPORT

ATTENDANCE

1. The Sub-Committee of Experts on the Transport of Dangerous Goods held its fifteenth session from 29 June to 9 July 1998, with Mr. S. Benassai (Italy) as Chairman and Mr. F. Wybenga (United States of America) as Vice-Chairman.

2. The session was attended by experts from the following countries: Argentina, Australia, Belgium, Brazil, Canada, France, Germany, India, Italy, Japan, Mexico, Netherlands, Norway, Poland, Russian Federation, South Africa, Spain, Sweden, United Kingdom, United States of America.

3. Observers from the following countries were also present under rule 72 of the rules of procedure of the Economic and Social Council: Austria, Czech Republic, Democratic Republic of the Congo, Finland, Kenya, Nigeria, Portugal, Switzerland and Tunisia.

4. Representatives of the following specialized agency: International Labour Organization (ILO) and of the International Atomic Energy Agency (IAEA) were also present.

5. The following intergovernmental organizations were also represented: Commission of the European Communities (CEC); Central Office for International Carriage by Rail (OCTI); Organization for Economic Co-operation and Development (OECD); Committee of the Organization for Co-operation between Railways (OSZhD).

6. Representatives of the following non-governmental organizations took part in the discussion of items of concern to their organizations: International Association of the Soap, Detergent and Maintenance Products Industry (AISE); European Chemical Industry Council (CEFIC); European Committee of Paint, Printing Ink and Artists' Colours Manufacturers' Associations (CEPE); International Technical Committee for the Prevention and Extinction of Fire (CTIF); European Industrial Gas Association (EIGA); European Portable Tank Association/Tank Container Association (EPTA/TCA); Federation of European Aerosol Associations (FEA); International Federation of Freight Forwarders Associations (FIATA); Hazardous Materials Advisory Council (HMAC); International Council of Intermediate Bulk Container Associations (ICIBCA); International Electronical Commission (IEC); International Fibre Drum Institute (IFDI); International Road Transport Union (IRU); International Organization for Standardization (ISO) and the International Union of Railways (UIC).

ADMINISTRATIVE MATTERS

Documentation

7. Several delegations said that, despite an improvement in the dates of receipt of documents, most documents had again been received extremely late.

8. Some delegations said that they had only been able to prepare for the session by consulting the documents on the ECE Transport Division's Internet page. However, the expert from Germany pointed out that not all delegations had the technology for accessing documents via Internet and that it was essential that documents be distributed by mail several weeks before the opening of the session.

9. The Secretary was asked to consult the competent services to ensure more efficient distribution.

10. A member of the secretariat pointed out that, according to the rules established by the General Assembly, documents could not be distributed until they were available in all the working languages.

Staffing

11. The Sub-Committee expressed deep regret that the vacant P-2 post in the Transport Division's Dangerous Goods and Special Cargoes Section remained unfilled and that temporary staff had not been regularly assigned to it since the last session. It also noted with concern that a second P-2 post in the Section would shortly become vacant.

12. Concerned at the inevitable repercussions of that unstable situation on the secretariat's ability to achieve the goals set in an area to which the States Members of the United Nations attached great importance, the Sub-Committee reiterated its call for the two posts to be filled without delay.

13. The expert from Germany suggested to check whether one P-2 post could be upgraded to P-3 to avoid it being reserved for recruitment according to the national competitive examination procedure. That would reduce the time needed to fill it and would ensure better continuity.

ADOPTION OF THE AGENDA

14. The Sub-committee, after amending it to include late submissions (informal documents INF.1 and INF.2), adopted the provisional agenda prepared by the secretariat (ST/SG/AC.10/C.3/29).

TANKS

Provisions for gases with critical temperatures below 65° C

Documents: **ST/SG/AC.10/C.3/28/Add.2 (Report of the Working Group at the fourteenth session)**
ST/SG/AC.10/C.3/1998/33 (United States of America)
ST/SG/AC.10/C.3/1998/46 (EIGA)

15. The expert from the United States of America said that the work on requirements for the design and construction of multiple-element gas containers should not cease at the end of the current biennium but should continue into the period 1999/2000, when the Committee should also work on gas bottles in the light of ISO's work on standardization.

16. Other delegations thought, on the contrary, that the work in question should be concluded as rapidly as possible.

17. A working group was asked to consider the documents and met from 29 June to 2 July 1998.

18. After considering the report of the working group (see annex 1 in addendum 1 to this report), the Sub-Committee was of the opinion that it would not be possible to reach a final conclusion at the Committee's session because ISO work on standards for gas cylinders has not yet been completed. As a result, the Committee's agenda would not include any substantive discussion of the matter and the Sub-Committee asked the Committee to continue the work during the next biennium.

Other tank matters

Document: ST/SG/AC.10/C.3/1998/12 (Spain)

19. The Sub-Committee adopted, with some changes, the amendments proposed in paragraphs 1 (b), 1 (c) and 1 (d) of the document (see annex 2 in addendum 2 of this report).

20. With regard to the proposal contained in paragraph 2 (c), the expert from Spain was invited to submit a new proposal taking into account the applicability of paragraph 6.6.3.8.1. The Sub-Committee believes that the key element for achieving relief capacity is spring-loaded relief devices, rather than a combination of such devices and frangible disks.

Documents: ST/SG/AC.10/C.3/1998/32 (United States of America)
ST/SG/AC.10/C.3/1998/40 (Belgium)

Informal document: INF.23 (United Kingdom)

21. The expert from the United States informed the Sub-Committee of the implications of the decisions taken at the previous session (ST/SG/AC.10/C.3/1997/88/Add.1, amended by the Sub-Committee in conformity with report ST/SG/AC.10/C.3/28, annex 1) for the implementation of the rationalized approach adopted at the thirteenth session (ST/SG/AC.10/C.3/26/Add.1).

22. The representative of OCTI said that, in the restructuring of the RID/ADR, it was planned to keep the provisions on tank-containers appearing in the existing RID/ADR and to add provisions for the use of United Nations portable tanks. That would be subject to the provisions in question being included in the IMDG Code.

23. The expert from Belgium speaking as Vice-Chairman of the IMO Dangerous Goods, Solid Cargoes and Containers (DSC) Sub-Committee, said that IMO intended to adopt the new United Nations requirements in their entirety, but that transitional arrangements should be made for existing IMO tanks, which it should be possible to continue using. He added that, as certain tanks were used by the industry specifically for transporting a single substance, transitional arrangements should also be made for transport in such tanks (dedicated tanks).

24. Several delegations said that, the question of dedicated tanks aside, consultations with the chemical industry and tank manufacturers gave no reason to think there would be any particular problems in implementing the new requirements.

25. The Sub-Committee agreed to ask an ad hoc working group to review the comments on document ST/SG/AC.10/C.3/1998/32 and to consider what kind of transitional arrangements might be necessary.

26. The conclusions of the ad hoc working group can be found in annex 3 to this report. The expert from the United States of America will submit further documents for the Committee's session in accordance with these conclusions.

Informal document: INF.8 (Argentina)

27. The expert from Argentina requested that the document be submitted to the Sub-Committee in 1999. He was nevertheless invited to discuss the matters raised in the document with the relevant experts at the current session and to revise the document should the outcome of those discussions so warrant.

PACKAGINGS AND IBCs

Packing instructions

Documents: **ST/SG/AC.10/C.3/1998/19 (United States of America/United Kingdom)**
ST/SG/AC.10/C.3/1998/21 (United States of America/United Kingdom)
ST/SG/AC.10/C.3/1998/22
ST/SG/AC.10/C.3/1998/23 (United States of America/United Kingdom)
ST/SG/AC.10/C.3/1998/41 (Belgium)
ST/SG/AC.10/C.3/1998/42 (Belgium)
ST/SG/AC.10/C.3/1998/45 (Australia)
ST/SG/AC.10/C.3/1998/48 (Germany)
ST/SG/AC.10/C.3/1998/49 (Germany)
ST/SG/AC.10/C.3/1998/50 (Germany)

Informal documents: INF.21 et INF.22 (United States of America/United Kingdom)

28. The expert from Germany, supported by the experts from Argentina, Belgium and the Netherlands, was of the view that it would not be possible to complete the work on packing instructions by the end of the current biennium, as he would like more consultations with the International Maritime Organization and the RID/ADR Joint Meeting before such provisions were included in the Model Regulations. He had no objection to the general packing instructions being finalized, but special cases, IBCs and large packagings merited closer consideration.

29. However, other experts pointed out that the members of the Committee represented all modes of transport and that the Committee's role was to produce Recommendations for all Governments and all organizations responsible for a given mode of transport.

Those organizations can submit proposals in the course of the work and they are also invited by the Economic and Social Council to make comments on the Recommendations when they deem necessary.

30. It was also pointed out that the basic proposals of the United Kingdom and United States of America (ST/SG/AC.10/C.3/1998/19, -/C.3/1998/21 and -/C.3/1998/22) had been prepared after the meeting of the working group organized by the Government of Canada in Ottawa from 2 to 4 March 1998, and took considerable account of the position of the International Maritime Organization DSC Sub-Committee as reflected in the Sub-Committee's report of its meeting of 9-13 February 1998 (DSC 3/15).

31. The representative of OCTI, observing that some compromise solutions had been reached at the Ottawa meeting, said it would be unfortunate if immediate use were not made of them to enable them to be taken into account in the RID/ADR restructuring, since harmonized packing instructions were essential to this work.

32. The expert from Australia said that his Government was in principle opposed to the introduction of detailed packing instructions: the situation as it stood appeared adequate from the safety standpoint. His Government was, however, prepared to accept a compromise for the harmonization of the land and sea requirements.

33. The expert from Belgium asked the Sub-Committee to take a decision on the two solutions for packing instructions put forward in his document, ST/SG/AC.10/C.3/1998/41. The general feeling was, however, that neither of those solutions represented what the international community expected of the Committee. Paragraph 5 of the Recommendations provides that when less stringent provisions can be applied to one mode only, that fact is usually not mentioned. That should not be taken to mean that the Recommendations should be based on the most stringent provisions currently applicable to the various modes of transport. The general view was that, in order to make multimodal transport possible, a reasonable compromise between the land and sea requirements must be sought.

34. The Sub-Committee decided to consider document ST/SG/AC.10/C.3/1998/19, as amended by informal document INF.22, beginning with the general packing instructions.

Instruction P001 (for liquid substances)

35. The expert from Belgium made an oral proposal to adopt the limits agreed by the IMO DSC Sub-Committee at its third session for combination packagings, packing group I (75 kg, except for expanded plastics boxes and jerrycans where the limit is 60 kg). This proposal was not adopted.

36. An oral proposal by the expert from the Netherlands to reduce the maximum net mass of fibreboard drums for packing groups II and III from 400 kg to 125 kg (because of problems of humidity and condensation in containers) was not adopted. It was pointed out that the problem would persist with 125 kg drums and that, if such drums met the requirements of chapter 6.1, they should be considered suitable for transport.

37. The Sub-Committee decided that there was no need to limit the maximum capacity of removable head drums for packing groups II and III to 250 litres and that the limit of 450 litres was appropriate.

38. The Sub-Committee decided that composite packagings with an inner glass receptacle could be authorized for packing group I subject to a maximum limit of 60 litres, which was consistent with the IMO rules for such packagings.

Instruction P002 (for solid substances)

39. The Sub-Committee decided that, like other boxes, natural-wood boxes with sift-proof walls would not be acceptable as single packagings for substances of packing group I.

Liners

Document: ST/SG/AC.10/C.3/1998/53 (United Kingdom/United States of America)

Informal document: INF.17

40. The Sub-Committee, acting on the basis of a joint proposal from the United Kingdom and the United States of America (ST/SG/AC.10/C.3/1998/53 and informal document INF.17), adopted a definition for "liners" and a requirement in paragraph 4.1.1.13 to the effect that packagings for solid substances must be sift-proof or have a liner (see annex 2).

Solid substances that may liquefy during transport

41. It was pointed out that the question of packagings that could be used for solid substances that may liquefy during transport had been discussed at length during the previous session (ST/SG/AC.10/C.3/28, paras. 49-56) and that the Sub-Committee had requested the experts from the United Kingdom and United States of America to follow the approach in the IMDG Code, where it was stated that certain packagings for solid substances should not be used for substances that might liquefy during transport. It was further pointed out that the IMDG Code did not specify that packagings authorized for solid substances that could liquefy must be tested like packagings for the transport of liquid substances, and that opinions had been divided at the previous session as to the interpretation of RID/ADR in that regard.

42. Since RID/ADR provided that a melting point of 45 °C should be the distinguishing point for packaging purposes between substances to be considered as solid and substances that could liquefy during transport, it was proposed that footnote 1 to instruction P002 should be amended to read: *"These packagings should not be used if the melting point of the substance is 45 °C or lower or if the substance may liquefy during transport".*

43. A number of experts felt that the onus of care lay with the consignor and that there was no need to impose a rule of the kind proposed when temperatures of the order of 45 °C or lower were unlikely to be reached during transport. The proposal was rejected in favour of the text proposed in document ST/SG/AC.10/C.3/1998/19.

44. The expert from Germany proposed that footnote 2 to instruction P002 should be amended to state that removable-head drums and jerrycans for use with solid substances in packing groups II or III capable of liquefying during transport should be tested as packagings for liquid substances.

45. The expert from the Netherlands expressed the view that the proposal by the expert from Germany should apply to all packagings intended for the transport of solid substances capable of liquefying.

46. The proposal, on being put to the vote, was not adopted.

47. The expert from Germany requested that boxes 4A, 4B, 4H1 and 4H2 should not be accepted as single packagings for substances capable of liquefying. Other experts said that such boxes were already used for substances of that kind, and the proposal by the expert of Germany was not adopted.

48. In the light of these decisions, the expert from Germany expressed a reservation concerning the whole of instruction P002.

Use of removable head drums for viscous PG I liquids

Document: ST/SG/AC.10/C.3/1998/23 (United Kingdom/United States of America)

49. The document was prepared following discussions at the fourteenth session (ST/SG/AC.10/C.3/28, paras. 33 to 35) in which it was accepted that such drums could be used providing the conditions for their use were defined.

50. Some experts expressed regret that only one condition, concerning minimum viscosity (200 mm^2/s) had been proposed and that no reference had been made to other conditions such as the type of construction of the removable head.

51. The expert from Germany proposed that the viscosity limit should be higher (2,680 mm^2/s).

52. Following discussion, the Sub-Committee preferred the limit of 200 mm^2/s to that proposed by the expert from Germany and decided to include in instruction P001 as footnote 1 for removable-head drums, the text proposed in document ST/SG/AC.10/C.3/1998/23. Experts in favour of setting other conditions were requested to submit written proposals.

53. In the light of that decision, the expert from Germany expressed a reservation to the whole of instruction P001.

Instruction P003

54. The Sub-Committee decided to delete the reference to large packagings.

Instruction P200

55. The Sub-Committee adopted the proposed text without change, on the understanding that the special packing provisions applicable to particular substances would be examined at a later date.

N type packagings

Document: ST/SG/AC.10/C.3/1998/1 (United States of America)

56. A number of experts expressed the view that the proposal to include in chapter 6.1 requirements for metal drums of metals other than steel or aluminium had not been adequately substantiated and that the important changes that would be needed to the chapter (concerning, for example, the drop test) had not all been taken into consideration.

57. The Sub-Committee nonetheless adopted the United States proposal, subject to the making by the secretariat of further consequential changes to chapter 6.1 (see annex 2).

Presentation of packing instructions

Document: ST/SG/AC.10/C.3/1998/42 (Belgium)

58. The expert from Belgium pointed out that the proposed presentation of packing instructions was not very user-friendly, as it obliged the user to check a large number of items.

59. The expert from the United States of America said that he would take the remarks of the expert from Belgium into account in studying how to make the system more user-friendly, but he did not wish to introduce additional packing instructions.

Rationalized approach for assigning substances or groups of substances to packing instructions or special packing instructions

Document: ST/SG/AC.10/C.3/1998/50 (Germany)

60. The Sub-Committee generally accepted the principles proposed in the document.

61. The expert from the United Kingdom pointed out that the document did not seem to have taken into account substances with subsidiary risks.

Special provisions for packagings and IBCs

62. he Sub-Committee decided to entrust an ad hoc working group with consideration of special packing provisions for packing instructions P001, P002, P003 and P200, the assignment of these packing instructions to substances of Chapter 3.2, specific packing instructions and provisions concerning IBCs.

63. After meeting several times during the session, the ad hoc working group informed the Sub-Committee that intersessional work would be needed to produce conclusions for the Committee's session.

64. The expert from Germany proposed that an informal working group should meet in Frankfort from 7 to 11 September 1998, chaired by the expert from the United Kingdom (Mr. J. Hart).

65. The Sub-Committee accepted the proposal and invited the informal working group to:

(1) Reconsider and expand on the assignment of instructions P001, P002, P003 and P200 to substances of Chapter 3.2;

(2) Reconsider the other packing instructions and their assignment to specific substances;

(3) Reconsider instructions for IBCs and their assignment to various substances;

(4) Consider the question of large packagings.

66. The working group should base its work on the following documents:

- revised and updated version of document (ST/SG/AC.10/C.3/1998/19 (United Kingdom/United States of America);
- revised and updated version of document ST/SG/AC.10/C.3/1998/22 (United Kingdom/United States of America) (by order of UN Numbers and by class/division);
- ST/SG/AC.10/C.3/1998/21 (as it stood);
- Annex of document ST/SG/AC.10/C.3/1998/50, to be updated by the expert from Germany on the basis of informal document INF.41;
- ST/SG/AC.10/C.3/1998/49 (as it stood).

67. All delegations wishing to propose substantive changes to the documents were invited to do so in writing on to transmit them to the expert from the United Kingdom by 4 September 1998, by fax or e-mail.

Other packagings and IBCs matters

Miscellaneous changes to chapter 6.5 (IBCs)

Document: ST/SG/AC.10/C.3/1998/43 (ICIBCA)

68. The proposed miscellaneous changes concerning the marking of detachable parts of composite IBCs, clarity of marking and the heading in the table in paragraph 6.5.1.4.1 (a) were adopted, with a correction at the beginning of paragraph 6.5.2.1.1, to make it clear, as does the

existing text, that the reference is to IBCs manufactured in accordance with chapter 6.5 (see annex 2).

Editorial revision of chapter 4.1

Document: ST/SG/AC.10/C.3/1998/52 (United Kingdom)

Informal document: INF.18 (United Kingdom)

69. The proposals of the expert from the United Kingdom were adopted, with a few changes (see annex 2).

Test requirements for plastics packagings and IBCs

Document: ST/SG/AC.10/C.3/1998/57 (Finland)

Informal document: INF.31 (Finland)

70. Several experts were of the view that to allow the temperature for conducting drop tests of packagings made of plastics other than HD polyethylene to differ according to the country of transport would raise considerable difficulties for international transport. From that point of view, it might be preferable to lower the drop-test temperature, although it was also pointed out that the documents from the observer for Finland provided no proof that conducting tests at a temperature lower than -18° C would significantly raise the safety level.

The use of venting devices on IBCs

Informal document: INF.29 (Germany)

71. After an exchange of views on the proposal to specify the substances for which an IBC could be equipped with a venting device, the expert from Germany requested that the proposal be officially transmitted to the Committee at its December session.

72. The representative of ICIBCA requested that the matter be discussed during the next biennium.

Transport of IBCs after the expiry of the deadline for the validity of inspection

Informal document: INF.32 (India)

73. The expert from India asked that her document, which had been submitted to the preceding session, be reconsidered. She had been invited to revise her proposal on the basis of the text of paragraph 4.1.2.10 (see ST/SG/AC.10/C.3/28, para. 84).

74. The expert from India said that in her view the provisions of paragraph 4.1.2.10 adopted by the Committee at its fourteenth session (ST/SG/AC.10/23/Add.1, annex 1, para. 16.1.16.9) did not correspond to the decisions taken at the meeting as reflected in the narrative part of the report (ST/SG/AC.10/23, para. 39).

75. It was confirmed that paragraph 4.1.2.10 as it appeared in the tenth edition of the Recommendations corresponded to the decisions taken by the Committee.

76. The expert from India requested that her proposal be officially submitted to the Committee, as in her view paragraph 39 of the Committee's report contained a clearer presentation of the provisions. Moreover, her proposal contained substantive changes which she had proposed orally during the Committee's session that were intended to avoid empty or filled IBCs being sent unchecked after the expiry of the deadline for the validity of inspection to countries whose legislation governing the transport of dangerous goods was non-existent or insufficiently developed.

RADIOACTIVE MATERIAL (Class 7)

Document: ST/SG/AC.10/C.3/1998/44 (IAEA)

Informal document: INF.30 (Argentina)

77. The Sub-Committee adopted the IAEA proposal, subject to the following supplementary decisions:

(a) The placard currently bearing code number 7D should retain that number, and the new label for fissile material should become label 7E;

(b) In the definitions, the term "shall mean" should be replaced by "means" or "mean" as necessary, in conformity with Recommendations, IMDG Code, RID, ADR and ADN usage;

(c) The 11th revised edition document would contain a table of correspondence between paragraph numbers in the IAEA Regulations and those in the Model Regulations (see annex 4).

78. The expert from Argentina raised a few questions in informal document INF.30. After discussion with the representative of IAEA, he decided to withdraw his paper.

79. The expert from Germany requested that a coordination mechanism be developed to ensure that any changes to the IAEA Regulations were simultaneously incorporated into the Model Regulations.

80. The representative of IAEA said that the Agency would be adopting a two-year amendment cycle in conformity with current practice for the UN Model Regulations and the modal regulations, and that regular inter-secretariat meetings would be held for coordination purposes.

MISCELLANEOUS DRAFT AMENDMENTS TO THE MODEL REGULATIONS ON THE TRANSPORT OF DANGEROUS GOODS

Listing and classification

Lithium batteries

Documents: **ST/SG/AC.10/C.3/1997/83 (United States of America)**
ST/SG/AC.10/C.3/1998/24 (Germany, France, United States of America)
ST/SG/AC.10/C.3/1998/25 (Germany, France, United States of America)
ST/SG/AC.10/C.3/1998/63 (Germany)

Informal documents: **INF.16 (Canada)**
INF.36 (IEC)

81. Following the introduction by the expert from the United States of America of the joint proposals contained in documents ST/SG/AC.10/C.3/1998/24 and -/C.3/1998/25, the expert from Canada pointed out that the existing provisions on lithium batteries had basically been established for a certain type of small cell, and that it would not necessarily be appropriate to extend those test requirements to all types of lithium battery. Research was being conducted in his country, and he would present its results to the Committee in order to ensure that appropriate tests were presented for the different types.

82. The representative of IEC said that the main organizations of small lithium battery manufacturers were of the opinion that applying the test requirements for large lithium batteries to small batteries would harm the industry, and that certain tests were not appropriate for small batteries (test T.4 in particular). More exemptions should be provided, and small portable lithium-ion cells and batteries should be fully exempted.

83. The experts from the United States of America and France said that the proposed new provisions concerned only large lithium batteries; the existing provisions on small batteries remained the same. Adoption of the new provisions was urgent, in particular for lithium batteries intended to power electric vehicles: such batteries were currently being tested in several European countries in an effort to promote the use of electric vehicles and large numbers of them were being transported internationally. If the existing requirements raised problems internationally for other new types of cell or battery, those cases might be considered at a later date, since numerous exemptions already existed for small lithium batteries.

84. The Sub-Committee adopted the proposals contained in documents ST/SG/AC.10/C.3/1998/24 and -/C.3/1998/25 (see annex 2). However, the reference in paragraph 38.3.4.4.3 to a maximum force of 10 kN was placed in square brackets, in view of a proposal from the expert from the United States that it should be deleted.

85. The expert from France said that the 10 kN criterion had been introduced because large batteries capable of withstanding such a force, which was already quite high, were usually able to withstand higher forces too and it was therefore unnecessary to continue testing beyond that point.

86. The expert from Germany observed that the UN Recommendations and the Manual of Tests and Criteria were becoming filled with requirements and tests for only two UN entries. In his view, the relevant standardization bodies should be invited to link the tests to standards to which reference could be made without cluttering the regulations.

87. The expert from France pointed out that the numerical values in the texts the Sub-Committee had adopted were not accurate to a decimal place, as was usually the case in the Manual (where, for example, the expression "5.0 g", rather than "5 g", was systematically used). The Sub-Committee confirmed that the expression "5 g" should be understood as an exact value in the same way as "5.0 g" and not as having been rounded up or down.

Transport of samples

Document: ST/SG/AC.10/C.3/1998/3 (United States of America)

88. The proposal not to require technical names transported under N.O.S. descriptions pursuant to the new paragraph 2.0.4.1 (ST/SG/AC.10/C.3/26/Add.2) was adopted, since the samples in question were often being transported to undergo laboratory testing to determine their exact composition, which was unknown at the time of consignment.

89. The expert from India said that she might revert to that matter at the Committee's session.

Deletion of Special Provisions 38, 59, 62 and 65

Document: ST/SG/AC.10/C.3/1998/6 (United States of America)

90. Several experts remarked that the special provisions enabled users to know for certain that substances with concentrations lower than those indicated in Chapter 3.2, column 2, were exempt and so saved them from having to conduct classification tests.

91. It was pointed out that there were many other substances, such as acetic acid (UN 2790), for which there were no special provisions, whereas in the RID and ADR NOTES indicated which concentrations were not governed by regulations. The question was therefore one of policy and there should be a consistent approach throughout the Model Regulations.

92. The expert from France suggested that the question be settled by means of a general provision in Chapter 3.1 to the effect that products with concentrations lower than those indicated in column 2 were not governed by the Regulations. That would avoid a series of special provisions.

93. The United States proposal, on being put to the vote, was not adopted.

Reclassification of methacrylic acid

Document: ST/SG/AC.10/C.3/1998/13 (CEFIC)

94. The experts from Germany and the United States of America requested information in addition to that contained on the data sheet; the proposal will be considered at a later date, after CEFIC has completed the document accordingly.

Special Provision 283

Document: ST/SG/AC.10/C.3/1998/34 (United States of America)

95. While some experts expressed reservations about the need for a fire test, the proposed amendment was adopted, with some changes (see annex 2).

Deletion of UN 2530, Isobutyric anhydride

Document: ST/SG/AC.10/C.3/1998/35 (United States of America)

96. The expert from the United States confirmed that the flash point was 66.4° C and that the corrosivity to aluminium was 0.08 mm/year. The proposal was adopted on the basis of the data provided (see annex 2).

Listing of copper sulphate, solid or solution

Document: ST/SG/AC.10/C.3/1998/51 (Germany)

97. The proposal to place copper sulphate, solid or solution, in class 6.1 on the basis of toxicological data other than that relating to oral ingestion by rats was supported by several experts.

98. Certain experts said that copper-based pesticides should be classified according to criteria, perhaps by WHO LD_{50} values. It was also noted that, based on an oral LD50 value of 300 mg/kg for the rat, the Government of Belgium had proposed to the RID/ADR Joint Meeting that copper-sulphate-based solid preparations should not be included in the RID/ADR and that only liquid preparations with a concentration higher than 60% should be governed by the Regulations (TRANS/WP.15/AC.1/R.850).

99. It was also pointed out that the Committee had recommended avoiding classifying or reclassifying substances on the basis of criteria that might be changed in the context of global harmonization.

100. As several experts asked for additional explanations concerning scientific knowledge of the toxicity of copper sulphate for humans, the expert from Germany said that his proposal was mainly based on human experience which according to 2.6.22 takes precedence over data obtained from animal testing. He would provide supplementary information and requested that the final decision be deferred.

Document: ST/AG/AC.10/C.3/1998/55 (Belgium)

Informal document: INF.13 (CEFIC)

Precedence of hazard characteristics (self-reactive and oxidizing substances)

101. Some experts agreed that there were contradictions in the classification rules for substances with both self-reactive and oxidizing properties, which made them difficult to classify. The present texts were, however, the fruit of a compromise based on safety considerations and it would, they felt, be premature to amend them while work was still in progress on the substances.

102. The proposal that paragraph 2.4.2.3.1.1 (a) be deleted was not adopted.

Classification of ferrosilicon products

Document: ST/SG/AC.10/C.3/1998/61 (Norway)

103. The proposal to delete special provision 40 and to assign special provision 223 to UN 1408 was adopted (see annex 2).

Classification of nitroglycerin mixture, desensitized, liquid, non-flammable, with not more than 30% nitroglycerin, by mass, in Class 3

Document: ST/SG/AC.10/C.3/1998/72 (Germany)

104. The proposal resulting from the Sub-Committee's decision to include desensitized liquid explosives in Class 3 (see ST/SG/AC.10/C.3/28, para. 113 and annex 2) was adopted with some modifications (see annex 2).

Engine-starting fluid (Ex UN 1960)

Informal document: INF.3 (United States of America)

105. The expert from the United States of America noted that the Engine Starting Fluid entry had been removed from the Recommendations and that in the alphabetical index the reader was now referred for engine starting fluid to UN 1950 Aerosols. Engine starting fluid could also be transported in cylinders as liquefied gas, flammable, n.o.s., UN 3161.

106. The Sub-Committee decided to remove the reference to UN 1950 and allow the consignor to choose the appropriate entry (see annex 2).

Classification of sodium phosphate, tribasic, dodecahydrate

Informal document: INF.10 (Austria)

107. The Sub-Committee noted that, on the basis of testing using a solution with 40% by mass, the Government of Austria had decided to classify the substance as UN 3262 for both the anhydrous form (CAS-No. 7601-54-9) and the dodecahydrate form.

108. The expert from the United States said that he was surprised to see the anhydrous form classified on the basis of tests of the corrosion rate of the solution on aluminium. The observer for Austria said that, according to the RID and ADR definitions, substances which formed a corrosive liquid when water was present were also considered to be corrosive substances.

Additional proper shipping name for methyl methacrylate monomer (UN 1247)

Informal document: INF.11 (United States of America)

109. The expert from the United States of America proposed that UN 1247 should be amended in keeping with the English versions of UN 1086 (vinyl chloride) and sulphur trioxide (UN 1829), i.e. to indicate that the entry applied both to the substance when stabilized (STABILIZED) and to the substance when stabilized by an inhibitor (INHIBITED).

110. The Sub-Committee noted, however, that that distinction was not made in all the languages, as the verb INHIBIT was not always used in that context. The entries in the French version included only the term STABILISÉ ("stabilized"), which was more general, and it might be more appropriate to use the term STABILIZED throughout the English version, whatever the method of stabilization.

111. The document will be submitted to the Committee.

Refrigerating machines

Informal document: INF.20 (United States of America)

112. The expert from the United States of America noted that, in accordance with the Montreal Protocol, which prohibited the use of chlorofluorocarbons (CFCs) as refrigerant gases because of their potential for destroying the ozone layer, the industry had begun to use in refrigerating machines replacement gases that, unlike CFCs, entailed hazards, in particular flammability, during transport or use. He proposed specific measures for such machines, which would be transported on an increasingly large scale.

113. It was pointed out that such machines are also transported during removals or for disposal as wastes. According to RID and ADR, there are not subject to class 2 requirements when they contain not more than 12 kg flammable gas.

114. The document will be submitted to the Committee.

Mixtures of gases with oxidizing potentials greater than air

Document: ST/SG/AC.10/C.3/1998/30 (United States of America)

115. The expert from the United States of America proposed that a lower concentration limit of 23.5% oxygen (i.e. higher than the concentration of oxygen in air) be set for the application to mixtures in the UN 1014 and UN 1980 categories, of the Division 5.1 subsidiary risk label.

116. Several experts were of the view that the limit should be 21%, which corresponded to the oxygen concentration in the air, and that the Sub-Committee should abide by the decisions taken in the context of global harmonization.

117. The representative of EIGA explained that a 21% limit would raise practical problems. As the expert from the United States of America had explained, the oxygen concentration of some mixtures, such as artificial air, could range from 19.5% to 23.5%, and would make frequent re-labelling necessary. No significant risk was entailed in using the 21% concentration in the ISO standards for determining the oxidizing potential of mixtures with oxygen concentrations very slightly higher than 21%.

118. The expert from the United States of America said that he would prepare a new proposal, in consultation with EIGA.

Chapter 3.4 - Limited quantities

Document: ST/SG/AC.10/C.3/1997/93 (FEA and CEPE)

119. The document was withdrawn by the representative of CEPE.

Document: ST/SG/AC.10/C.3/1998/65 (AISE)

120. The representative of AISE pointed out the lack of harmonization among modal regulations with regard to provisions governing the transport of dangerous goods in limited quantities, and the resulting problems for the industry. In that connection, he suggested rationalization of the rules, a general small quantity exemption, and standardized markings and notations in the transport document.

121. Opinions on the issue were divided. Some experts were of the view that rationalization was necessary, while others believed that, especially with regard to quantities, approaches could differ depending on the mode of transport.

122. As each of the AISE proposals in the document was felt likely to be the subject of considerable discussion, it was deemed preferable to allow the Committee to decide whether the matter should be included in the programme of work for the next biennium.

Chapter 5.4 (Documentation)

Document: ST/SG/AC.10/C.3/1998/7 (United States of America)

123. The expert from the United States of America explained that, it was important for the emergency services to be able rapidly to identify and understand the information on dangerous goods contained in the transport document. Paragraph 5.4.1.2.2 therefore stipulated that the basic information needed by the emergency services, i.e. proper shipping name, class/division, UN Number and packing group, should appear in a precise sequence. In order for those elements to form a fixed information unit, he proposed that the insertion of any additional information within those four elements should be prohibited.

124. Several experts felt that the proposal was too inflexible. It was common practice, for example, to add information on concentration, composition, etc., to the proper shipping name.

125. The expert from the United States explained that by proper shipping name he meant the designation in capital letters in Chapter 3.2, column 2, plus any additional information or variant required or authorized under sections 3.1.2 and 3.1.3 (such as the addition of the term "SOLUTION"). It might be possible to amend those sections to indicate what it was permissible to include in the proper shipping name (e.g. concentration of solutions), if some experts deemed necessary.

126. The proposal was adopted (see annex 2).

Harmonization of dangerous goods transport documentation requirements

Documents: ST/SG/AC.10/C.3/1998/54 (CEPE)
ST/SG/AC.10/C.3/1998/20 (United Kingdom)

Informal documents: INF.4 (HMAC)
INF.34 (Secretariat)
INF.35 (Sweden)

127. The Sub-Committee took note of the concerns of CEPE and the International Trade Procedures Working Group of the ECE Centre for the Facilitation of Procedures and Practices for Administration, Commerce and Transport (CEFACT) with regard to the divergences in the requirements regarding the information to be included in the transport document depending on the transport mode in question. The Group's aim was to harmonize documentation, reduce the number of forms which consignors had to complete; legalize the use of electronic data exchange and related technologies and standardize the method for completing documents.

128. It was emphasized that the main practical problems arose at the European level, where documentation requirements for land transport were not aligned with the Model Regulations while those for sea and air transports were. It was not for the ITPWG/CEFACT Working Group to determine which information was necessary: its mandate should be restricted to the incorporation of information items in the documents and in document format.

129. The Sub-Committee also noted the problems reported by HMAC regarding implementation of the CEFACT FAL recommendations, and of the intention of ITPWG/CEFACT to update the recommendations which included documentation aspects of the transport of dangerous goods to take account of developments in the regulations. The problems in question, however, appeared to be due to errors in interpreting the text of the FAL recommendations, which were usually designed as tools for standardizing the application of the various laws and regulations on transport documentation rather than as binding rules.

130. It was suggested that such documentation matters should be included in the programme of work for the next biennium.

Document on the transport of wastes

Informal document: INF.33 (India)

131. The expert from India noted that a considerable amount of waste was transported internationally for recycling purposes; she expressed the wish that provisions for such transport operations should be included in the documentation and that all the wastes covered by the Basel Convention should be subject to the Model Regulations.

132. Several experts felt that the safety aspects of the transport of dangerous goods covered by the Model Regulations should not be combined with aspects relating to the control of transboundary movements of hazardous wastes and their disposal which were covered by the Basel Convention, although compatibility between the two sets of regulations should be ensured, especially with regard to classification.

133. The document would be distributed officially for consideration at a later date.

Chapters 5.2 and 5.3 (Marking and labelling)

Additional danger labels

Document: ST/SG/AC.10/C.3/1998/2 (United States of America)

134. The expert from the United States of America said that industry in his country, in its desire to be conscientious, wished to be able to cover all possibilities by adding danger labels other than those prescribed in Chapter 3.2 for a given substance when it felt that the substance in question involved dangers not indicated in Chapter 3.2.

135. The expert from Germany said that no provision in the Model Regulations prohibited the application of additional danger labels on packagings and that this practice is permitted in his country as long as these additional labels reflect existing hazards of classes 1 to 9 (as confirmed by a decision of a court of justice).

136. Several delegations were opposed; they feared that that practice would raise major difficulties, in particular for checks by the inspection services, inconsistencies in interpreting stowage requirements, placarding of containers, etc. It should also be determined whether other requirements should also be observed in such cases, for example, requirements for the use of tanks, which would normally apply for a subsidiary risk.

137. A vote was taken on the proposal, which was not adopted.

Placarding of mixed loads

Document: ST/SG/AC.10/C.3/1998/4

138. The expert from Australia said that he would submit an updated proposal during the following biennium.

Alternative subsidiary risk label

Document: ST/SG/AC.10/C.3/1998/5 (Australia)

139. The expert from Australia explained that the obligation to use different labels to identify a hazard according to whether it was a primary risk or a subsidiary risk placed constraints on enterprises. He proposed that authorization should be given for using, for subsidiary risks, primary risk labels with the lower part cut out to remove the class/division number.

140. It was recalled that provision had originally been made for such a distinction because the European land transport regulations, RID and ADR, prescribed a form of labelling which enabled the primary risk to be distinguished from the subsidiary risk. Several experts considered, however, that from the point of view of safety, there was no need to distinguish between a primary and a subsidiary risk in terms of labelling. RID/ADR indeed no longer considered such a distinction to be necessary. A proposal by Germany (ST/SG/AC.10/C.3/R.726) to eliminate it had not been adopted several years previously.

141. After discussing the matter, the Sub-Committee declared itself favourable in principle to eliminating the distinction between subsidiary risk and primary risk labels. The experts from Canada and Australia would accordingly submit a proposal to the Committee and the proposal by the expert from Australia would remain on the agenda for the Committee's session.

Labelling of small packagings

Document: ST/SG/AC.10/C.3/1998/16 (CEPE)

Informal document: INF.9 (CEPE)

142. Several experts considered that the problem raised by CEPE concerning the labelling of small packagings carried in an overpack had already been solved in part by existing provisions. The representative of CEPE would prepare a further proposal.

Other draft amendments

Separation of dangerous goods

Document: ST/SG/AC.10/C.3/1997/89 (United States of America)

143. The expert from the United States asked that this document should be considered in the course of the next biennium.

Provisions concerning the handling of packages

Document: ST/SG/AC.10/C.3/1998/39 (Belgium)

144. The proposal by the expert from Belgium to amend paragraph 7.1.1.4 which had been adopted at the previous session was not adopted.

Work of the RID/ADR Joint Meeting

Document: ST/SG/AC.10/C.3/1998/74 (Secretariat)

145. The secretariat drew the Sub-Committee's attention to a number of decisions taken by the RID/ADR Joint Meeting concerning the restructuring of RID and ADR, particularly with reference to the presentation of the table in Chapter 3.2, and proposed that the Model Regulations should be similarly amended.

146. The Sub-Committee considered that the document should be discussed by the Committee since it should be considered simultaneously with the proposals for labelling.

Infectious substances

Document: ST/SG/AC.10/C.3/1998/8 (United States of America)

147. The proposal to specify in packing instruction 620 that an absorbent material was not required when the infectious substances carried were solids was adopted (see annex 2).

Document: ST/SG/AC.10/C.3/1998/59 (Canada)

148. The proposal to amend paragraph 2.6.3.1.3 (b) in order to specify that specimens transported for the purpose of initial diagnosis for other than the presence of pathogens or specimens transported for routine screening tests fell within group (b) was adopted (see annex 2).

149. The expert from Germany considered that these diagnostic specimen should not be subject to Division 6.2 according to Note 2 to paragraph 2.6.3.1.1.

Informal document: INF.5 (HMAC)

150. The representative of HMAC submitted several proposals with a view to preparing more accurate definitions of infectious substance and providing for packing methods better adapted to them. He was invited to submit these proposals separately in the course of the next biennium.

Toxic by inhalation substances

Documents : ST/SG/AC.10/C.3/1998/26 (United States of America)
ST/SG/AC.10/C.3/1998/27 (United States of America)
ST/SG/AC.10/C.3/1998/28 (United States of America)
ST/SG/AC.10/C.3/1998/29 (United States of America)

Informal documents: INF. 7 (Argentina)
INF.15 (CEFIC)
INF.27 (Belgique)
INF.43 (United States of America)
INF.44 (EIGA)

151. The Chairman recalled that the question of introducing specific provisions for toxic by inhalation substances in the Model Regulations had already been discussed at previous sessions (see ST/SG/AC.10/C.3/26, paras. 90 and 91 and ST/SG/AC.10/C.3/28, paras. 114 to 122).

152. The principle of including specific provisions was supported by the expert from Canada and the representative from CTIF. However, several experts considered that it was premature to discuss such new provisions, especially those concerning definitions and distinction between different groups (A or B) within Packing Group I, because the globally harmonized classification criteria had not yet been finalized and it would not be wise to introduce such provisions in the 1999 version of the Model Regulations if they had to be revised two years later on the basis of the globally harmonized system.

153. The Chairman asked for a vote on the principle on introducing such kind of provisions in the next edition of the Model Regulations, and the majority decision was not to include such provisions in that edition.

154. It was agreed that the need for such work on Toxic by Inhalation substances in the next biennium should be considered by the Committee at its next session.

155. Proposals for packagings to be used for such substances should be submitted in writing to the working group on packing instructions.

Organic peroxides/Self-reactive substances

Documents: ST/SG/AC.10/C.3/1997/53 and -/Corr.1 (Japan) (as amended by informal document INF.25)
ST/SG/AC.10/C.3/1998/75 (CEFIC)
ST/SG/AC.10/C.3/1998/77 (CEFIC)

156. The proposed additions and amendments to the tables of paragraphs 2.4.2.3.2.4 and 2.5.3.2.4 and to packing instructions 521 and 522 were adopted (see annex 2). The representative of CEFIC expressed the hope that the tables would be simplified in the course of the next biennium so as to make updating easier.

Document: ST/SG/AC.10/C.3/1998/56 (Finland)

157. Several experts mentioned that the various tests on formulations of peroxyacetic acid with a concentration of about 40% had never resulted in a Type F classification; they therefore asked the observer from Finland to supply additional information on the test results for the Committee's session at which this document would be re-submitted.

Document: ST/SG/AC.10/C.3/1998/76 (CEFIC)

158. The representative of CEFIC proposed that control temperature settings for carriage in tanks should be revised, since the prescribed temperatures were derived from the self accelerating decomposition temperature (SADT) calculated for a package, although the SADT was different for large quantities carried in tanks and other factors could be taken into account, in particular the insulation of the tank.

159. The expert from the United States expressed concern at the proposal since it would be tantamount to establishing a method of calculating the control temperature in terms of the actual size of the packaging, the IBC or the tank; he preferred keeping to the present method.

160. The representative of CEFIC said that, according to the Recommendations, the SADT should be calculated according to the real size of the package. He had no wish, however, to introduce a method of calculation whereby the control temperature would be directly commensurate with the size of the packaging, although he had thought that cases of packagings, IBCs and tanks might possibly be envisaged separately.

161. The CEFIC proposal was adopted (see annex 2).

EXPLOSIVES (CLASS 1)

Test 6 (c)

Documents: **ST/SG/AC.10/C.3/1998/10 (Norway)**
ST/SG/AC.10/C.3/1998/36 (United States of America)
ST/SG/AC.10/C.3/1998/60 (France)
ST/SG/AC.10/C.3/1998/69 (Netherlands)
ST/SG/AC.10/C.3/1998/70 (Netherlands)
ST/SG/AC.10/C.3/1998/71 (Netherlands)

Informal documents: **INF.6 (Argentina)**
INF.14 (United Kingdom)
INF.42 (France)

162. The expert from Norway introduced the report of the informal working group which had met in Washington, DC, from 2 to 6 February 1998.

163. Once the new proposals had been introduced by their authors, the Sub-Committee gave the task of considering them in detail to an ad hoc working group which met on 6 and 7 July, with the mandate of preparing a new set of texts to be included in the forthcoming editions of the Model Regulations and the Manual of Tests and Criteria. The working group would also be required to consider document ST/SG/AC.10/C.3/1998/66 (point 6 (b)).

164. The Sub-Committee confirmed that, in order to determine hazard levels, account must be taken of the protection of the emergency services teams, whatever their type, and not only of the fire services which were already equipped with special protective clothing.

165. The Sub-Committee considered and approved the report of the Working Group circulated as informal document INF.47 (see annex 5), including a new text for section 16.6 of the Manual of Tests and Criteria (see annex 2).

166. The expert from the United Kingdom noted that the working group report proposed that a new revised edition of the Manual of Tests and Criteria be published. He recalled that other amendments to the Manual had been made earlier in the biennium and that it had been suggested that explanatory material concerning principles applied for the allocation of specific requirements to the transport of dangerous goods in the Model Regulations, should also be published in order to ensure consistency in the further development of the Model Regulations.

167. The Sub-Committee invited the secretariat to prepare a document for the Committee session with proposals on how to best prepare and publish both amendments to the Manual and explanatory material.

Miscellaneous

Rockets with inert heads

Document: ST/SG/AC.10/C.3/1998/9 (Norway)

168. The proposal to add a new entry (1.2C) for such rockets has been adopted (see annex 2).

Mixed transport of goods of Class 1 with other dangerous goods

Document : ST/SG/AC.10/C.3/1998/11 (Norway)

169. Several detailed comments were made on the text proposed for a new section 7.1.3.2. The expert from Norway said that he would prepare a new proposal accordingly.

Classification of air bag inflators, air bag modules or seat-belt pretensioners in division 1.4G

Document : ST/SG/AC.10/C.3/1998/18 (Norway, Sweden and United Kingdom)

170. The proposal for a new entry for these articles in division 1.4, compatibility group G, was adopted (see annex 2).

Segregation requirements for explosives of compatibility groups C, D, E and G

Document : ST/SG/AC.10/C.3/1998/37 (United States of America)

171. The expert from the United States of America withdrew his proposal and said that he would prepare a new one on the basis of the provisions of the IMDG Code, RID and ADR.

Koenen test

Document : ST/SG/AC.10/C.3/1998/47 (Germany)

172. The proposal to amend paragraphs 11.5.1.2.2., 12.5.1.2.2 and 25.4.1.2.2 of the Manual of Tests and Criteria was adopted (see annex 2).

Test methods for exclusion from Class 1

Documents : ST/SG/AC.10/C.3/1998/58 (Sweden)
ST/SG/AC.10/C.3/1998/67(and informal document -/Add.1) (Canada and Netherlands)

Informal document : INF.24 (United Kingdom)

173. Certain experts felt that it was not necessary to include such test methods in the Manual of Tests and Criteria, and that the decision to exclude certain goods from Class 1 should be left to the competent authority of each country in accordance with the existing practice.

174. Other experts considered on the contrary that, as the Manual of Tests and Criteria is made mandatory through legislation of many countries, the approaches should be harmonized especially for international transport to avoid conflicts between competent authorities as to whether or not a given substance or article might be excluded from Class 1.

175. Other experts agreed that there would be merits in developing a harmonized approach, but that only criteria for exclusion should be developed and that the methods of testing against such criteria should be left to the expertise of the competent authority.

176. The Sub-Committee agreed that this subject should be proposed to the Committee for inclusion in its programme of work for the next biennium.

Additional test for 1.4 and 1.4S classification

Document : ST/SG/AC.10/C.3/1998/66 (Canada)

177. Several experts expressed the view that the fact that part of the definition of 1.4S is not addressed by test 6 (c) would not justify the addition of a new test 6 (d). The problem raised could be solved by some amendments to the introduction to section 16.1 of the Manual of Tests and Criteria. The expert from Germany offered to prepare a proposal to that effect, and the expert from Canada withdrew his proposal, offering to cooperate with the expert from Germany.

New entry (1.1.D) for hydrazinium nitroformate

Document : ST/SG/AC.10/C.3/1998/68 (Netherlands)

178. The expert from the Netherlands was invited to provide more information on this new explosive substance for the Committee session.

1H - Tetrazole

Document: ST/SG/AC.10/C.3/1998/73 (Germany)

Informal document: INF.48 (CEFIC)

179. The proposal by the expert from Germany to include a new entry in division 1.1.D for this substance which is likely to be carried in large quantities for example for use in airbags has been adopted (see annex 2).

180. The representative from CEFIC said that certain desensitized formulations of this explosive substance are widely used in the pharmaceutical industry, and he requested new entries in Class 3 and division 4.1. He was invited to submit a formal proposal accompanied with appropriate data sheets and information on these formulations.

181. The expert from the Netherlands said that N.O.S. entries for desensitized explosives should be included in Class 3 and division 4.1 to avoid such requests for new entries whenever a new explosive substance is listed in chapter 3.2

GLOBAL HARMONIZATION OF SYSTEMS OF CLASSIFICATION AND LABELLING OF CHEMICALS

General

Informal documents: INF.19 (United Kingdom)
INF.39 (ILO)

182. The representative of ILO informed the Sub-Committee that his organization had approved the establishment of a working group on the harmonization of chemical hazard communication systems, which had held its first meeting in London on 22 June to consider its mandate and programme of work.

183. He also informed the Sub-Committee of the results of the discussions at the twelfth session of the IOMC Coordinating Group for the Harmonization of Chemical Classification Systems (CG/HCCS), and in particular of the adoption of a proposal to establish a mechanism for the implementation and follow-up of the Globally Harmonized System (INF.39). This would consist of the reconfiguration of the Committee of Experts on the Transport of Dangerous Goods (CETDG) into a new United Nations Committee on the Globally Harmonized System and Transport of Dangerous Goods (UN CGHS and TDG), which would comprise two Sub-Committees, one a Sub-Committee of Experts on the Transport of Dangerous Goods (SCETDG) (as it currently existed) and the other a Sub-Committee of Experts on the Globally Harmonized System (GHS).

184. The expert from the United Kingdom explained the reasons which had led him to support the proposal (INF.19).

185. The expert from the Russian Federation said that he supported the proposal and that his country's Government was in favour of a global convention for the harmonization of classification and labelling systems.

186. The expert from Argentina said that he could support the proposal provided that the two Sub-Committees and the Committee would be serviced by the same unit of the secretariat and the sessions of the two Sub-Committees combined so as to reduce participation costs. He pointed out that the efficiency of the Committee of Experts on the Transport of Dangerous Goods was largely due to its unity and to good horizontal cooperation between experts.

187. The expert from the United States voiced concerns regarding the possible consequences of such a rearrangement on the efficiency of the present system. He feared that the new activities would cut down the working time available for the safety of the transport of dangerous goods and would create complications in determining a national position. He wondered whether SCETDG would continue to be responsible for questions of physical hazards. He felt that the Committee's present efficiency was related to the implementation of the Rules of Procedure of the Economic and Social Council with regard to decision-making and was concerned about introducing the notion of consensus. He also pointed out the implications for the secretariat's human resources, especially if the composition of the new bodies was not restricted. Lastly, he wondered whether the establishment of a Committee whose sole role would ultimately be to endorse the

recommendations of the two Sub-Committees, adopt their respective programmes of work and distribute their working time in terms of those programmes - a role which the Council could perform directly - was indispensable. He proposed that the Committee should be replaced by a bureau comprising the chairmen of the two Sub-Committees.

188. The expert from Germany welcomed the fact that the new structure envisaged would enhance the political appeal of the work of the Committee, whose reputation was thereby confirmed. He pointed out that many of the questions raised were answered in document INF.39, and that it had been planned that the sessions of the two Sub-Committees would take place one after the other so as to permit maximum cooperation between experts from different regulatory systems. It must be admitted that SCETGD's programme would be less burdensome in the future and that a logical step would be to allocate the work time saved to the work on global harmonization, in a balanced form depending on needs. He reminded the meeting that the expertise of other organizations, such as OECD, could be called on if necessary and that the structure envisaged enabled the additional staff resources which the other options proposed would have required to be cut back to a minimum. However, it must be admitted that the staff resources currently assigned to servicing the Committee would need to be improved to take account of the additional workload. He considered that if this implied the backing of one or even two posts, this would represent a minimum resource implication compared with the other mechanisims which had been envisaged.

189. The experts from Canada and Germany said that they would like equal representation on the Committee from the two Sub-Committees.

190. The expert from Canada said that he could support document INF.39 but he hoped that the identity of SCETDG, including its prerogative to determine its programme of work, could be preserved. He also hoped that the mandate of the new GHS Sub-Committee would be more clearly defined and that paragraph 13 of the report, on the composition of the Committee, could be put in square brackets.

191. The expert from Norway said that he would like some clarification as to the amount of work expected and guarantees that mandates would not be duplicated.

192. The experts from Spain and Mexico shared the fears of the experts from Argentina, the United States and Canada.

193. The expert from France said that he supported the proposal because it would at best ensure intersectoral cooperation and synergy between different ministries. A structure of this nature would bring new energy to the sphere of chemical safety while the establishment of a separate body was likely to be unproductive.

194. The observer from Austria pointed out that the Recommendations on the Transport of Dangerous Goods were in practice reflected in the legislation of various of the Member States of the United Nations and that each Member State should as a result have the right to take part in the decision-making process. He thought that, in view of the repercussions on legislation in the various Member States, the new bodies should be open to a maximum number of interested countries.

195. A member of the secretariat said that if the Member States of the United Nations wished to settle the question of global harmonization within the context of the United Nations Economic and Social Council they must take the institutional framework into account. International economic and social cooperation activities were governed by articles 55 to 60 of the Charter of the United Nations, while articles 62 to 66 governed the functions and powers of the Economic and Social Council. He said that the Council itself was a restricted membership body whose members were elected by the General Assembly. The subsidiary organs generally also had a restricted membership elected by the Council or, as in the case of the Committee, appointed by the Secretary-General on the basis of criteria established by the Council, including expertise, economic involvement in international transport and geographical distribution, following consultation with potentially interested States. The Council was also empowered to convene international conferences on matters within its purview, but a priori, the organization of such conferences or meetings with no limitations on participation would mean staff resources and methods of work far beyond what actually existed. The ECE secretariat would consult the competent bodies of the Secretariat in this regard.

196. The experts from Sweden and South Africa supported the proposal contained in document INF.39.

197. The representative of CEFIC stressed the major importance the chemical industry gave to global harmonization. The representative of HMAC expressed concern at the possible harmful implications for the Committee's efficiency in the transport of dangerous goods and coordination with modal organizations such as ECE, ICAO and IMO.

198. The Sub-Committee finally agreed in principle that the existing Committee and Sub-Committee could be reconfigured as a new Committee on the transport of dangerous goods and the globally harmonized system with two sub-committees. The Sub-Committee stressed that all questions concerning the establishment of the reconfigured Committee and the new Sub-Committee, including their composition, membership, terms of reference, proceedings, participation, consultative arrangements, etc. would have to be governed by the relevant rules of the Rules of procedure of the Economic and Social Council. The mandates of the Committee and the new GHS Sub-Committee need to be carefully drawn up and detailed programmes of work prepared in accordance with normal practice.

199. The Sub-Committee considered that this reconfiguration and the work which would follow on from it required additional staff; in order to use them as efficiently as possible and to ensure the desired synergy among the various sectors involved, they should be allocated to the pertinent unit of the Committee's present secretariat services, i.e. the Dangerous Goods and Special Cargoes Section of the Transport Division of the United Nations Economic Commission for Europe.

200. The representative from ILO circulated a paper prepared by the IOMC Coordinating Group entitled "Description and further clarification of the anticipated application of the globally harmonized system (GHS)" (INF.45).

Health hazards and hazards to the environment

Informal documents: **INF.26 (Chairman)**
INF.37 (OECD)
INF.38 (OECD)
INF.40 (ISO)

201. The representative of OECD introduced a report on the status of OECD work on the classification of criteria relating to health hazards (INF.37) and hazards to the environment (INF.38).

202. After a general discussion, the Chairman requested the Sub-Committee to take a decision on the options being discussed in OECD in connection with toxicity criteria.

203. It was recalled that the Committee had taken decisions on those options at its December 1994 session (see ST/SG/AC.10/21, paras. 123-129).

204. The Sub-Committee felt that option A, set out in document INF.26, was preferable to option B, especially as the proposed limits in option B diverged considerably from currently applicable limits.

205. Concerning the LD_{50} limit for oral ingestion toxicity, the Sub-Committee confirmed the position taken by the Committee in 1994, to the effect that the limit should be 200 mg/kg for both liquids and solids. A 500 mg/kg limit would make it necessary to establish regulations for the transport of a large number of additional substances whereas there was a very low risk of accidental ingestion during transport of a sufficient quantity of such substances to cause death.

206. Regarding the unit to be used for gas and vapour inhalation toxicity (mg/l or volume/volume ppm), certain experts felt that mg/l would be preferable from the scientific point of view and for classification. Other experts felt that, as ppm was widely used, a change of unit would oblige the industry to reclassify a large number of substances and implement new transport rules. In addition, the expert from Canada said that ppm (volume/volume) is the usual unit for emergency response equipment.

207. The representative of EIGA confirmed that such a unit change would have far-reaching consequences, as ppm (volume/volume) units were widely used for classification. He cited the example of mixtures containing a toxic gas and inert gases, where the same gas in a mixture of the same proportion would be classified differently depending on the density of the inert gas used (argon or helium, for example). He said that ppm was used not only in transport regulations but also in labour regulations.

208. The representative of ISO said that ppm was used in ISO standard 10298:1995 concerning the determination of the toxicity of a gas or gas mixture, and that that standard was used as a reference in numerous other standards (for example ISO 5145, ISO 11621, ISO 11625, ISO/CD 11622) concerning choice and size of cylinder valves, filling of cylinders, handling, etc. The ppm unit was also used in ISO standard 13344 on the determination of the lethal toxic capacity of fire emissions.

209. At the conclusion of the discussion, a vote took place and the majority was in favour of maintaining the ppm unit (volume/volume).

210. The representative of ISO said that the lower limit (Class 1, 125 ppm (or 250 ppm for a 1-hour exposure)) did not correspond to the limit used in current standards (200 ppm for a 1-hour exposure). The representative of EIGA said that there was no gas with a CL_{50} between 200 ppm and 250 ppm and that there was consequently no real reason to set a limit of 250 ppm rather than 200. The value proposed by OECD would merely make it necessary to amend the texts of the standards and regulations in force.

211. The Sub-Committee confirmed the Committee's view that the volatility criterion was an important parameter for determining the probability of the presence of a toxic gas in the air in the event of a leak of a toxic liquid, and therefore should be associated with the LC_{50} criterion for substances classified in packing group I (Refer to para. 2.6.2.2.4.3 of the Model Regulations, i.e. V (saturated vapour concentration in millilitres per metre cube of air at 20 °C and standard atmospheric pressure) ≥ 10 LC_{50}).

212. The Sub-Committee also confirmed the Committee's preference for the value of 2.5 mg/l for the class 3 dusts and mists inhalation criterion.

213. The Sub-Committee noted that the OECD secretariat intended to prepare an impact analysis for 50 to 100 chemicals, and recalled that any move from one packing group to the other would imply changes in transport regulations with respect to the packagings and tanks to be used. The representative of OECD invited delegations to submit comments on this matter to the OECD secretariat.

Hazards to the environment

Informal documents : **INF.12 (Vice-Chairman)**
INF.38 (OECD)

214. The Sub-Committee considered that in principle the system of building blocks developed by OECD would be suitable for the purposes of transport regulations.

Classification criteria for mixtures

215. The Sub-Committee was informed that OECD had started work on classification criteria for mixtures and that an OECD workshop would take place in January 1999. The secretariat has transmitted to the OECD secretariat copies of all relevant texts in the Model Regulations and RID/ADR.

Physical hazards

Documents : **ST/SG/AC.10/C.3/28/Add.3**
ST/SG/AC.10/C.3/1997/27 (Chairman of the Working Group)
ST/SG/AC.10/C.3/R.764 (United Kingdom)
ST/SG/AC.10/C.3/1997/37 (United Kingdom)
ST/SG/AC.10/C.3/1997/43 (European Commission)
ST/SG/AC.10/C.3/1997/80 (Norway)
ST/SG/AC.10/C.3/1997/91 (FEA)
ST/SG/AC.10/C.3/1998/62 (United States of America)
ST/SG/AC.10/R.509 (Germany)

216. The Sub-Committee noted that FEA is working in cooperation with various aerosol associations in order to develop proposals for the flammability of aerosols, as well as alternatives to the water bath method for testing aerosol dispensers. A proposal on some aspects of the flammability classification of aerosols might be submitted to the Committee session.

217. The expert from Germany felt that the UN/ILO Working Group on Physical Hazards should be reconvened in July 1999. The Sub-Committee agreed to put the question to the Committee.

OTHER BUSINESS

Requests for consultative status

Documents: **ST/SG/AC.10/C.3/1998/17 (CTIF)**
ST/SG/AC.10/C.3/1998/14 (EUROPIA)

218. The Sub-Committee agreed to grant consultative status to CTIF.

219. In the absence of a representative from EUROPIA, the Sub-Committee decided to refer the request from EUROPIA to the Committee.

Fourth meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal

Document : **ST/SG/AC.10/C.3/1998/64 (UNEP/SBC)**

220. The Sub-Committee took note of the decisions of the 4th Meeting of the Conference of the Parties to the Basel Convention. Experts were invited to check lists A and B annexed to decision IV/9 and to transmit comments to the secretariat if deemed necessary.

221. The expert from the United Kingdom noted that, in the table of proposed activities for 1998 to 2000 with respect to hazard characterization and classification of wastes, there was no mention of activities linked to the global harmonization process. The Sub-Committee felt that, to ensure a continued compatibility between Annex III characteristics and the UN Model Regulations

criteria, the globally harmonized classification criteria presently being developed should be taken into account under Annex III of the Basel Convention. The secretariat was invited to contact the secretariat of the Basel Convention in that respect.

ADOPTION OF THE REPORT

222. The Sub-Committee adopted the report on its fifteenth session and the annexes thereto.

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Annex 1

Report of the Working Group on tanks for non-refrigerated gases with a critical temperature below 65 °C
(Refer to ST/SG/AC.10/C.3/30/Add.1)

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Annex 2

Draft amendments to the Model Regulations on the Transport of Dangerous Goods and to the Manual of Tests and Criteria
(Refer to ST/SG/AC.10/C.3/30/Add.2)

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Annex 3

Report of the Ad Hoc Working Group on Portable Tank Requirements

1. A Working Group consisting of representatives from Australia, Austria, Belgium, Canada, France, Germany, India, Japan, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States of America, OCTI, CEFIC and HMAC met on 30 June and 1 July 1998 outside the plenary of the fifteenth session of the Sub-Committee of Experts on the Transport of Dangerous Goods to review the documents concerning the Portable Tank Requirements. The Working Group was chaired by Mr. Wybenga from the United States of America.

2. The Working Group was remitted to consider the following documents:

ST/SG/AC.10/C.3/1997/88/Add.1
ST/SG/AC.10/C.3/26/Add.1
ST/SG/AC.10/C.3/1998/32
INF.23

3. The Working Group agreed to present the following recommendations for consideration in plenary session of the Sub-Committee.

3.1 Changes to **ST/SG/AC.10/C.3/26/Add.1:**

Insert "a" after existing paragraph 6.8 in Part II and add a new paragraph 6.8b to read as follows:

"6.8b For substances in **DIVISION 4.3, PG II and III with or without subsidiary risks** the following requirements should apply:

Portable tank instruction	Minimum test pressure	Minimum shell thickness	Pressure relief device	Bottom openings
	4 bar	6 mm	Normal*/	6.6.2.6.3

"

3.2 Changes to **ST/SG/AC.10/C.3/1998/32:**

A. T Codes:

1. Replace "T6" by "T4" in the column headed "New T Code" for the PG III entries for UN 1992 and UN 2924.

2. Replace "T7" by "T8" in the column headed "New T Code" for the PG I entries for UN 2015 and UN 1873.

3. Replace "T15" with "T6 " in the column headed "New T Code" for the PG II and III entries for UN 3207.

4. Replace "T11" by "T8" in the column headed "New T Code" for the PG I entry for UN 1052.

5. Replace "T3" by "T4" in the column headed "New T Code" for the PG III entry for UN 3267.

6. Replace "T4" by "T6" in the column headed "New T Code" for the PG II entry for UN 1234.

7. Replace "T2" by "T4" in the column headed "New T Code" for the PG III entry for UN 1136.

8. Replace "T9" by "T11" in the column headed "New T Code" for the entry UN 1131.

9. Replace "T2" by "T4" in the column headed "New T Code" for the PG III entries for UN 2332, UN 2324, UN 2313 and UN 2413

10. Replace "T4" by "T6" in the column headed "New T Code" for entries of generic pesticides.

B. Tests pressures:

With respect to reducing required test pressures based on the rationalized approach, the Working Group agreed that test pressures should only be reduced when vapour pressure data is provided.

In order to address the issue of specifying minimum test pressures for n.o.s. entries, the group agreed to adopt special tank provisions to indicate that a low vapour pressure based on calculations in accordance with the minimum test pressure definition in 6.6.2.1 could be used. The group agreed that test pressures for these entries should not be lowered based on applying the rationalized approach.

The group agreed that the following Portable Tank Special Provisions (Tps) should be adopted:

"For those n.o.s. entries assigned a minimum test pressure of 2.65 bar - A tank with a test pressure of 1.5 bar can be allowed on the basis of vapour pressure calculations in accordance with 6.6.2.1."

Note: The alternative of specifying the lower pressure of 1.5 bar and a special tank provision indicating that a higher pressure may be required was also considered, but the majority of the group preferred the more conservative approach.

"For those n.o.s. entries assigned a minimum test pressure of 4 bar - A tank with a test pressure of 2.65 bar can be allowed on the basis of vapour pressure calculations in accordance with 6.6.2.1."

"For those n.o.s. entries assigned a minimum test pressure of 6 bar - A tank with a test pressure of 4 bar can be allowed on the basis of vapour pressure calculations in accordance with 6.6.2.1."

Conclusion:

The Working Group recommend that a new document should be prepared for next session of the Committee concerning T codes for solids (T3 or T1) which were not covered in document ST/SG/AC.10/C.3/1998/32. In document INF. 23, other entries in the list in table 4 should be further reviewed by experts, Participants were encouraged to provide their comments to the expert from the United States of America in time for the USA to prepare a revised document. It was agreed that amendments in addition to those previously mentioned in this report may be necessary to ST/SG/AC.10/C.3/26/Add.1 to bring the rationalized approach in line with the decisions taken by the Working Group. The expert from the United States of America agreed to prepare these amendments for the next session at the Committee of Experts.

Applicability of the Rationalized Approach (Grandfather Clause)

The Working group agreed that the Model Regulations should not address transitional measures for applying new requirements to portable tanks on the basis of the rationalized approach, it would be appropriate for the Committee to give guidance on dates of implementation to ensure international uniformity. The Working Group agreed that tank requirements arising from the rationalized approach should not be applied immediately to portable tanks built prior to their effective date. However where a new requirement was less severe than the previous requirement these could also be applicable to existing tanks. The Working Group also agreed that at some future data the requirements stemming from the application of the new rationalized approach should also be applicable to existing tanks.

The group noted that the IMO DSC E&T group will meet in September 1998 and that a working group on portable tank requirement will attempt to develop transitional provisions for application of the rationalized approach.

The Committee should consider this subject further on the basis of written proposals.

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Annex 4

Draft amendments to the Recommendations on the Transport of Dangerous Goods and the Model Regulations on the Transport of Dangerous Goods related to the introduction of provisions for class 7 - Radioactive Material
(See ST/SG/AC.10/C.3/30/Add.3)

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Annex 5

Report of the Working Group on Test 6(c)

1. The Working Group met from 6-7 July 1998 under the chairmanship of Mr. A. Johansen (Norway) with the following terms of reference:

(a) Review 1998/10 and documents ST/SG/AC.10/C.3/1998/36, -/60, -/69, -/70, -/71 and informal documents INF.6, INF.14 and INF.42.

(b) Review problems identified by Washington, DC Working Group regarding 1.4 definition in paragraph 2.1.1.4(d) of the Model Regulations and 16.6.1.4.5 of the Manual of Tests and Criteria.

Review of 1998/10 and documents commenting thereon

1998/10, para. 7, Thermal Effect. Para. 7(c), Thermal Flux

2. The Working Group discussed ST/SG/AC.10/C.3/1998/60 (France) proposal 4.4 and INF.6 (Argentina). The Working Group concluded that more accurate time measurements as proposed in INF.6 were unnecessary since items with burning times of 35 seconds or less are to be included in Division 1.3. The Working Group agreed to accept ST/SG/AC.10/C.3/1998/60 proposal 4.4, as amended.

1998/10, para. 8, Projection Hazards

Para. 8(a), Hazard Level

3. Document 1998/60, proposal 4.1 and 1998/70 (Netherlands) were considered by the Working Group, which agreed to accept the proposals in 1998/70, para. 6 and 7, as amended.

Para 8(b), Witness Screens

4. The Working Group reviewed 1998/36 (United States of America) and 1998/71 (Netherlands) which report on witness screen calibration studies completed in the United States of America and the Netherlands as agreed at the Washington, DC Working Group meeting. Data from both countries was very consistent which reinforced the Working Group's confidence in it's selection of witness screen material and acceptance criteria for 1.2/1.4 and 1.4/1.4S. United States of America noted that it tested the entire range from 1.5 to 27.1 J and that the Netherlands concentrated its studies on the 8 J energy level and United States of America supported the acceptance criteria for 8 J proposed by the Netherlands. The Working Group agreed that the notation "[x mm]" found in 1998/10, Annex 1, para. 16.6.1.4.5(a) and 16.6.1.4.6(a) should be replaced with the notation "4 mm".

5. Noting that this projection data was based upon metallic projections the Working Group recommended addition of a note regarding non-metallic projections to be added to the new Figure 16.6.1.1.

*Para. 8(d), **Live/Fiery Projections** and para. 8(d)(ii), **Fiery Projections***

6. The Working Group considered 1998/60 proposals 4.2, 4.3, and 4.6. Additionally, the Working Group again reviewed exactly what is meant by the term "product" and concluded that, pursuant to Section 10.2 of the Test Manual and Section 2.1.3.1.2 of the Model Regulations, the term included packaging containing the explosive article or substance being tested. Having made this conclusion it was noted that 1998/60 proposals 4.2, 4.3, and 4.6 were no longer required.

1998/10, para. 9, Review of Test Set-up

*Para. 9(a), **Type of Fuel***

7. The Working Group considered INF.14 and was of the opinion that such a detailed prescription of the gas fire was not necessary. However the group was of the opinion that some indication on the set up of a gas fire should be given and accepted portions of the text from INF.14 with amendments.

8. The Working Group recommended that future consideration should be given to standardization of a single fire to be used in the test.

*Para. 9(c), **Duration of Test***

9. The Working Group decided to add "if necessary" to 16.6.1.2(e) to clarify that additional time may be required for certain products. Additionally, the group agreed to delete the last sentence of 16.6.1.3.2 since it was repetitive of 16.6.1.2(e).

General review of Annex 1 of 1998/10

10. To clarify that the temperature prescribed in 16.6.1.3.1 was that of the flames and not the grid, the Group agreed to add "flame" to the last sentence of 16.6.1.3.1.

11. 1998/69 (Netherlands)

The Group agreed with the principle of 1998/69 to rephrase the 1.4 and 1.4S criteria proposed by the Washington, DC Working Group to read in a manner consistent with the other criteria of the test. See para. 16.6.1.4.5 and 16.6.1.4.6 of Annex 1 to this report for the text accepted by the group. An addition was made to 16.6.1.4.6 which corrected the discrepancies previously noted in the definition of 1.4S found in para. 2.1.1.4 of the Model Regulations and para. 16.6.1.4.6 of the Manual of Tests and Criteria.

General comments of the Working Group

12. During the course of the work, the Working Group noted that references to the Recommendations refer back to the Ninth revised edition. With the publication of the Tenth revised edition, the numbering has changed, and these references are no longer correct. In light of this, and due to the other substantial changes to the Manual of Tests and Criteria, the Working Group recommends that the Manual of Tests and Criteria be reprinted as a Third Revised Edition.